

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P309210

Luminaire Tested: **24FCZ2-30-UNV-L82765-HRP-CP125-W2A-U-5700K**

Issue Date: 3/3/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

Test Information

Test Method: LM-79-08
Report Number: P309210
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-20)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24FCZ2-30-UNV-L82765-HRP-CP125-W2A-U-5700K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125"
POLYCARB SHEET
Light Source: (168) 5700K TUNABLE CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment:

<u>Sample No.</u>	<u>Condition</u>	<u>Description</u>
AS-5443-1	Good	WHITE TWIN R-EVOLVE FLOOD
AS-5443-2	Good	REFLECTOR
AS-5443-3	Good	DRIVER
AS-5443-4	Good	UPPER MODULE
AS-5443-5	Good	LENS
AS-5443-6	Good	DRIVER 2
AS-5443-7	Good	TRIM RING

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2143.0 lumens
Efficiency: N/A
Efficacy: 88.9 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

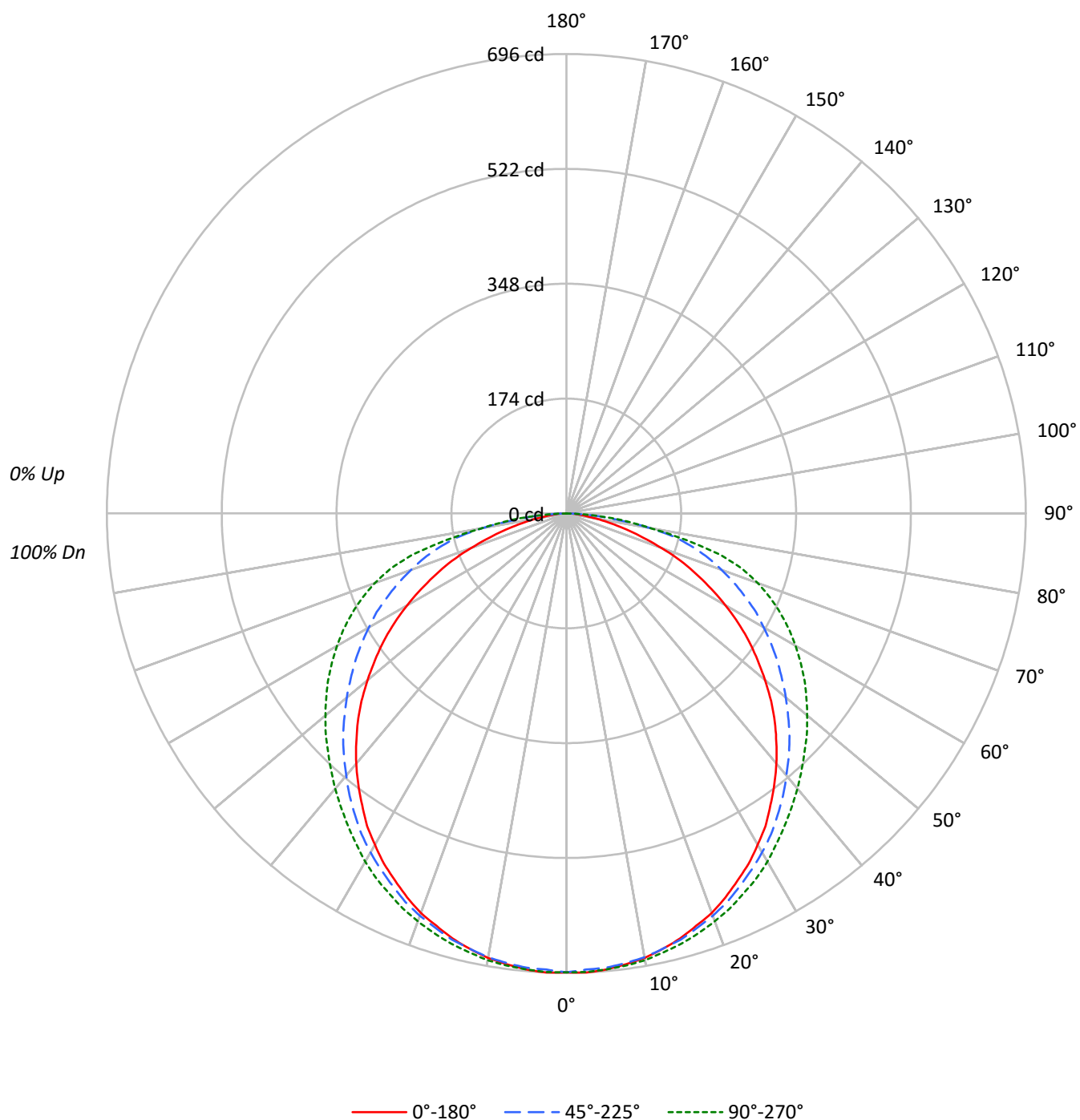
Input Watts (W): 24.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				0
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		0
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		100
1	108	103	98	94	105	101	96	93	96	93	90		92	90	87		82
2	98	89	82	76	95	87	80	75	83	78	73		80	75	71		67
3	89	78	69	62	86	76	68	62	73	66	61		70	64	59		56
4	81	68	59	52	79	67	59	52	65	57	51		62	56	50		48
5	74	61	52	45	72	60	51	45	58	50	44		56	49	44		41
6	69	55	46	39	67	54	45	39	52	44	38		50	43	38		36
7	63	50	41	34	62	49	40	34	47	39	34		46	39	34		31
8	59	45	36	30	57	44	36	30	43	36	30		42	35	30		28
9	55	41	33	27	54	41	33	27	40	32	27		39	32	27		25
10	52	38	30	25	50	38	30	25	37	30	25		36	29	24		23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	936	936	936
5°	937	933	937
10°	934	933	939
15°	929	931	940
20°	922	929	942
25°	911	924	943
30°	900	921	946
35°	886	917	948
40°	870	911	957
45°	850	910	971
50°	823	909	997
55°	793	916	1033
60°	748	929	1079
65°	691	951	1140
70°	603	985	1214
75°	490	1036	1254
80°	362	1015	1015
85°	276	747	844



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.9	3.1
10°-20°	189.1	8.8
20°-30°	287.9	13.4
30°-40°	349.6	16.3
40°-50°	369.4	17.2
50°-60°	348.6	16.3
60°-70°	289.8	13.5
70°-80°	190.7	8.9
80°-90°	52.0	2.4
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	543.0	25.3
0°-40°	892.6	41.7
0°-60°	1610.5	75.2
0°-90°	2143.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2143.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	695	695	695	695	695	
5°	694	694	691	694	694	66
15°	667	668	668	675	675	188
25°	614	617	623	633	635	283
35°	539	546	558	572	577	338
45°	447	456	478	502	510	344
55°	338	353	390	427	440	301
65°	217	242	299	343	358	215
75°	94	137	199	236	241	102
85°	18	40	48	54	55	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	695.3	695.3	695.3	695.3	695.3
2.5°	696.2	695.3	691.7	695.3	695.3
5°	693.5	693.5	690.8	693.5	693.5
7.5°	689.0	689.0	687.2	690.8	690.8
10°	683.6	683.6	682.7	687.2	687.2
12.5°	675.6	676.5	675.6	680.9	680.9
15°	666.6	667.5	668.4	674.7	674.7
17.5°	654.9	656.7	658.5	665.7	666.6
20°	644.2	645.1	648.6	656.7	657.6
22.5°	629.8	632.5	637.0	645.1	647.7
25°	613.7	617.2	622.6	633.4	635.2
27.5°	598.4	601.1	608.3	619.9	623.5
30°	579.6	584.1	593.0	604.7	609.2
32.5°	561.6	566.1	576.9	589.4	593.0
35°	539.2	545.5	558.0	572.4	576.9
37.5°	517.7	523.9	539.2	555.3	560.7
40°	495.2	502.4	518.6	537.4	544.6
42.5°	471.0	480.9	498.8	519.5	527.5
45°	446.8	455.8	478.2	501.5	510.5
47.5°	420.8	431.5	455.8	483.6	494.3
50°	393.0	406.4	434.2	464.7	476.4
52.5°	365.1	380.4	411.8	445.9	458.4
55°	338.2	352.6	390.3	427.0	440.5
57.5°	308.6	326.6	367.8	407.3	420.8
60°	278.1	297.9	345.4	386.7	401.0
62.5°	247.6	270.0	323.9	365.1	380.4
65°	217.1	242.2	298.8	342.7	358.0
67.5°	187.5	215.3	275.4	319.4	334.6
70°	153.4	188.4	250.3	293.4	308.6
72.5°	122.0	162.4	226.1	266.5	279.9
75°	94.2	137.3	199.2	236.0	241.3
77.5°	69.1	112.1	171.4	183.9	184.8
80°	46.7	89.7	131.0	129.2	131.0
82.5°	30.5	67.3	82.5	92.4	93.3
85°	17.9	39.5	48.4	53.8	54.7
87.5°	9.0	13.5	17.0	17.9	19.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)